

AUG 14 2007

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## SEARCH REQUEST FORM Scientific and Technical Information Center - EIC2800

Rev. 3/19/2007 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, JEF-4B68, 22511.

Date 8/8/07 Serial # 10/811/07 Priority Application Filing Date 11/28/03  
Your Name M. Heras Examiner # 73172  
AU 2522 Phone 202-1838 Room 5A39  
In what format would you like your results? Paper is the default. PAPER DISK EMAIL

If submitting more than one search request form, please prioritize the searches in order of need.

Where have you searched so far on this case?

Circle: USPAT USPGPUB DWPI EPO Abs JPO Abs IBM TDB

Other: \_\_\_\_\_

What relevant art have you found so far? Please attach citations or Information Disclosure Statements.

What types of references would you like? Please checkmark:

Primary Refs ☒ Nonpatent Literature \_\_\_\_\_ Teaching Refs \_\_\_\_\_  
Secondary Refs \_\_\_\_\_ Foreign Patents \_\_\_\_\_ Other \_\_\_\_\_

If this is a "Fast & Focused Search" request, put a checkmark here: ☐

And then please speak in-person immediately with the EIC2800 Technical Information Specialist or with an EIC2800 Searcher.

A "Fast & Focused Search" is completed in 2 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2800 and on the STIC NPL Web Page at <http://uspto-a-pattr-2/siraapps/stic/npl/nplsearch.htm>

In your own words, what is the topic, such as the novelty, motivation, utility, or other specific facets defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

Claims 1-4  
MOS  
Problem: See pages 1 & 2  
Solution: " 1 2 & 3

## Staff Use Only

Searcher: Michael Rivera  
Searcher Phone: 571-272-2663  
Searcher Location: STIC-EIC2800, JEF-4B68  
Date Searcher Picked Up: 8/15/2007  
Date Completed: 8/16/2007  
Searcher Prep/Rev Time: 97  
Online Time: 81

## Type of Search

Structure (#) \_\_\_\_\_  
Bibliographic ☒  
Litigation \_\_\_\_\_  
Fulltext \_\_\_\_\_  
Patent Family \_\_\_\_\_  
Other \_\_\_\_\_

## Vendors

STN \_\_\_\_\_  
Dialog ☒  
Questel/Orbit \_\_\_\_\_  
Lexis-Nexis \_\_\_\_\_  
WWW/Internet \_\_\_\_\_  
Other \_\_\_\_\_

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[File 2] INSPEC 1898-2006/Jan W2  
 [File 6] NTIS 1964-2006/Jan W4  
 [File 8] Ei Compendex(R) 1970-2006/Jan W4  
 [File 34] SciSearch(R) Cited Ref Sci 1990-2006/Jan W4  
 [File 434] SciSearch(R) Cited Ref Sci 1974-1989/Dec  
 [File 35] Dissertation Abs Online 1861-2006/Jan  
 [File 65] Inside Conferences 1993-2006/Jan W5  
 [File 99] Wilson Appl. Sci & Tech Abs 1983-2006/Apr  
 [File 144] Pascal 1973-2006/Jan W2  
 [File 23] CSA Technology Research Database 1963-2006/Jan  
 [File 103] Energy SciTec 1974-2006/Jan B1  
 [File 31] World Surface Coatings Abs 1976-2006/Jan  
 [File 95] TEME-Technology & Management 1989-2006/Jan W5  
 [File 56] Computer and Information Systems Abstracts 1966-2006/Aug  
 [File 57] Electronics & Communications Abstracts 1966-2006/Aug  
 [File 68] Solid State & Superconductivity Abstracts 1966-2006/Jan  
 [File 60] ANTE: Abstracts in New Tech & Engineer 1966-2006/Jan  
 [File 293] Engineered Materials Abstracts 1966-2006/Jan  
 [File 239] Mathsci 1940-2005/Feb  
 [File 256] TECINFOSOURCE 82-2005/DEC

Set	Items	Description
S1	5903865	S TRANSISTOR???? OR MOS OR METAL()OXIDE()SEMICONDUCTOR??? OR METALOXIDE()SEMICONDUCTOR??? OR NMOS OR PMOS OR MOSFET OR SEMICONDUCTOR??? OR SEMI()CONDUCTOR??? OR SWITCH??? OR IC OR I()C OR INTEGRATED()CIRCUIT???? OR WAFER???? OR CHIP??? OR MICROCHIP??? OR MICRO()CHIP??? OR CIRCUIT???
S2	1084653	S (MEMOR????? OR FLASH OR STOR????? OR BUFFER????? OR CACHE) (3N) (CELL OR CELLS OR ARRAY??? OR MATRI????) OR MEMOR????? OR DRAM OR D()R()A()M OR DYNAMIC()RANDOM()ACCESS()MEMORY OR SRAM OR S()R()A()M OR SYNCHRONOUS()DYNAMIC()RANDOM()ACCESS OR RAM OR R()A()M OR RANDOM()ACCESS
S3	180713	S (ADDITIONAL OR OTHER OR MORE OR ADDED OR FRESH OR NEW OR INCREAS???? OR FURTHER OR SUPPLEMENT???? OR ANOTHER) (3N) (LOAD????? OR CAPACITANC??? OR INDUCTANC???)
S4	350897	S (SOFT OR RECOVER????? OR GARBL?????) (2N) (ERRORS OR MESSAG??? OR DEFECT???? OR GLITCH????) OR VULNERAB????????? OR SUSCEPTIB???
S5	145483	S DIFFUSION(3N) (LAYER????? OR MATERIAL????? OR SUBSTANC????? OR AREA??? OR REGION????? OR SUBSTRATE????? OR FILM???)
S6	251922	S (WELL????? OR TRENCH????? OR VIA OR VIAS OR GROOVE?????) (3N) (AREA????? OR REGION??? OR PART????? OR SECTION????? OR LAYER?????)
S7	840736	S (HIGH????? OR INCREAS??? OR LARG????? OR RAIS????? OR BOOST????? OR AUGMENT?????) (3N)CONCENTRATION???
S8	121472	S (IMPURIT????? OR DOPING OR DOPE??? OR DOPANT OR ADDITIVE??? OR ION()IMPLANTATION OR DONOR OR ACCEPTOR OR ADMIX?????) (3N)CONCENTRATION???
S9	544837	S (MINIM????????? OR LOWER????? OR LOW OR REDUC????????? OR ATTENUAT????? OR DECREAS????????? OR LESS????? OR LIMIT????? OR MITIGAT????????????? OR SHORT????? OR FEW OR FEWER) (3N) (SOFT()ERROR OR DEFECT??? OR GLITCH????? OR DEGRAD????? OR DETERIORAT????? OR DECLIN????? OR DEGENERAT????? OR AREA OR SPAC??? OR REAL()ESTATE)
S10	0	S S1 AND S2 AND S3 AND S4 AND S5 AND S6 AND S7 AND S8 AND S9
S11	46	S S1 AND S2 AND S3 AND S4
S12	0	S S11 AND S5
S13	0	S S11 AND S6
S14	0	S S11 AND S7
S15	0	S S11 AND S8
S16	5	S S11 AND S9
S17	4	RD (unique items)
S18	0	S S1(3N)S2(3N)S3(3N)S4
S19	459	S S1(3N)S2(3N)S4
S20	8	S S19 AND S3
S21	3	RD (unique items)
S22	5	S S19 AND S5

S10	0	S S1 AND S2 AND S3 AND S4 AND S5 AND S6 AND S7 AND S8 AND S9
S11	46	S S1 AND S2 AND S3 AND S4
S12	0	S S11 AND S5
S13	0	S S11 AND S6
S14	0	S S11 AND S7
S15	0	S S11 AND S8
S16	5	S S11 AND S9
S17	4	RD (unique items)
S18	0	S S1(3N)S2(3N)S3(3N)S4
S19	459	S S1(3N)S2(3N)S4
S20	8	S S19 AND S3
S21	3	RD (unique items)
S22	5	S S19 AND S5

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S23	2	RD (unique items)
S24	2	S S19 AND S6
S25	2	RD (unique items)
S26	0	S S19 AND S7
S27	0	S S19 AND S8
S28	41	S S19 AND S9
S29	80	S S1 AND S4 AND S5
S30	4	S S29 AND S6
S31	3	RD (unique items)
S32	5	S S29 AND S7
S33	3	RD (unique items)
S34	1	S S29 AND S8
S35	3	S S29 AND S9
S36	3	RD (unique items)
S37	0	S S29 AND S3
S38	27	S S1(3N) S3(3N) S9
S39	0	S S38 AND S4
S40	0	S S38 AND S5
S41	0	S S38 AND S8
S42	30	S S2 AND S4 AND S5
S43	0	S S42 AND S3
S44	0	S S42 AND S9
S45	0	S S42 AND S8
S46	17	S S4(3N) S5
S47	6	RD (unique items)
S48	6	S S4(3N) S8
S49	5	RD (unique items)
S50	0	S S38 AND S7
S51	0	S S42 AND S7
S52	3	S S21 NOT S17
S53	2	S S23 NOT (S17 OR S21)
S54	2	S S25 NOT (S17 OR S21 OR S23)
S55	3	S S31 NOT (S17 OR S21 OR S23 OR S25)
S56	3	S S33 NOT (S17 OR S21 OR S23 OR S25 OR S31)
S57	0	S S34 NOT (S17 OR S21 OR S23 OR S25 OR S31 OR S33)
S58	3	S S36 NOT (S17 OR S21 OR S23 OR S25 OR S31 OR S33 OR S34)
S59	6	S S47 NOT (S17 OR S21 OR S23 OR S25 OR S31 OR S33 OR S34 OR S36)
S60	5	S S49 NOT (S17 OR S21 OR S23 OR S25 OR S31 OR S33 OR S34 OR S36 OR S47)
S61	27	S S38 NOT (S17 OR S21 OR S23 OR S25 OR S31 OR S33 OR S34 OR S36 OR S47 OR S49)
S62	15	RD (unique items)
S63	25	S S42 NOT (S17 OR S21 OR S23 OR S25 OR S31 OR S33 OR S34 OR S36 OR S38 OR S47 OR S49)
S64	9	RD (unique items)
S65	39	S S11 NOT (S17 OR S21 OR S23 OR S25 OR S31 OR S33 OR S34 OR S36 OR S38 OR S42 OR S47 OR S49)
S66	12	RD (unique items)

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[File 344] Chinese Patents Abs Jan 1985-2006/Jan

[File 347] JAPIO Dec 1976-2007/Mar(Updated 070809)

[File 350] Derwent WPIX 1963-2007/UD,UM &amp;UP=200744

[File 371] French Patents 1961-2002/BOPI 200209

Set Items Description

S1 5084707 S TRANSISTOR???? OR MOS OR METAL()OXIDE()SEMICONDUCTOR??? OR METALOXIDE()SEMICONDUCTOR??? OR NMOS OR PMOS OR MOSFET OR SEMICONDUCTOR??? OR SEMI()CONDUCTOR??? OR SWITCH??? OR IC OR I()C OR INTEGRATED()CIRCUIT???? OR WAFER???? OR CHIP??? OR MICROCHIP??? OR MICRO()CHIP??? OR CIRCUIT???

S2 1254094 S (MEMOR????? OR FLASH OR STOR????? OR BUFFER????? OR CACHE) (3N) (CELL OR CELLS OR ARRAY??? OR MATRI????) OR MEMOR??????? OR DRAM OR D()R()A()M OR DYNAMIC()RANDOM()ACCESS()MEMORY OR SRAM OR S()R()A()M OR SYNCHRONOUS()DYNAMIC()RANDOM()ACCESS OR RAM OR R()A()M OR RANDOM()ACCESS

S3 108784 S (ADDITIONAL OR OTHER OR MORE OR ADDED OR FRESH OR NEW OR INCREAS???? OR FURTHER OR SUPPLEMENT???? OR ANOTHER) (3N) (LOAD????? OR CAPACITANC??? OR INDUCTANC???)

S4 60538 S (SOFT OR RECOVER????? OR GARBL?????) (2N) (ERRORS OR MESSAG??? OR DEFECT????? OR GLITCH?????) OR VULNERAB????????? OR SUSCEPTIB????

S5 68195 S DIFFUSION(3N) (LAYER????? OR MATERIAL????? OR SUBSTANC????? OR AREA??? OR REGION????? OR SUBSTRATE????? OR FILM???)

S6 294723 S (WELL????? OR TRENCH????? OR VIA OR VIAS OR GROOVE?????) (3N) (AREA????? OR REGION??? OR PART????? OR SECTION????? OR LAYER?????)

S7 82239 S (HIGH????? OR INCREAS??? OR LARG????? OR RAIS????? OR BOOST????? OR AUGMENT?????) (3N) CONCENTRATION???

S8 32370 S (IMPURIT????? OR DOPING OR DOPE??? OR DOPANT OR ADDITIVE??? OR ION()IMPLANTATION OR DONOR OR ACCEPTOR OR ADMIX?????) (3N) CONCENTRATION???

S9 372267 S (MINIM????????? OR LOWER??????? OR LOW OR REDUC????????? OR ATTENUAT????? OR DECREAS??????? OR LESS??????? OR LIMIT????? OR MITIGAT??????????? OR SHORT??????? OR FEW OR FEWER) (3N) (SOFT()ERROR OR DEFECT??? OR GLITCH????? OR DEGRAD????? OR DETERIORAT????? OR DECLIN????? OR DEGENERAT????? OR AREA OR SPAC??? OR REAL()ESTATE)

S10 93689 S IC=(H01L-027/088 OR H01L-027/092 OR H01L-027/10 OR H01L-027/11 OR H01L-029/78)

S11 27267 S MC=(U11-C18B5 OR U13-C04B1B OR U14-A03B1)

S12 0 S S1 AND S2 AND S3 AND S4 AND S5 AND S6 AND S7 AND S8 AND S9

S13 54 S S1 AND S2 AND S3 AND S4

S14 4 S S13 AND S5

S15 11 S S13 AND S6

S16 1 S S13 AND S7

S17 4 S S13 AND S8

S18 6 S S13 AND S9

S19 20 S S13 AND S10

S20 7 S S19 AND S11

S21 0 S S1(3N) S4(3N) S5(3N) S9

S22 2 S S1(3N) S4(3N) S5

S23 2 S S2(3N) S4(3N) S5

S24 3 S S1 AND S4 AND S5 AND S7 AND S9

S25 3 S S1 AND S4 AND S5 AND S8 AND S9

S26 35 S S1(3N) S4(3N) S9

S27 1 S S26 AND S3

S28 1 S S1(3N) S3(3N) S4(3N) S9

S29 11 S S26 AND S2

S30 2 S S26 AND S5

S31 3 S S26 AND S6

S32 0 S S26 AND S7

S33 0 S S26 AND S8

S34 3 S S26 AND S10

S35 2 S S26 AND S11

S36 1 S S16 NOT S14

S37 3 S S17 NOT (S14 OR S16)

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S38 5 S S18 NOT (S14 OR S16 OR S17)  
 S39 6 S S20 NOT (S14 OR S16 OR S17 OR S18)  
 S40 2 S S22 NOT (S14 OR S16 OR S17 OR S18 OR S20)  
 S41 2 S S23 NOT (S14 OR S16 OR S17 OR S18 OR S20 OR S22)  
 S42 3 S S24 NOT (S14 OR S16 OR S17 OR S18 OR S20 OR S22 OR S23)  
 S43 2 S S25 NOT (S14 OR S16 OR S17 OR S18 OR S20 OR S22 OR S23 OR S24)  
 S44 0 S S27 NOT (S14 OR S16 OR S17 OR S18 OR S20 OR S22 OR S23 OR S24 OR S25)  
 S45 0 S S28 NOT (S14 OR S16 OR S17 OR S18 OR S20 OR S22 OR S23 OR S24 OR S25 OR S27)  
  
 S46 2 S S30 NOT (S14 OR S16 OR S17 OR S18 OR S20 OR S22 OR S23 OR S24 OR S25 OR S27 OR  
 S28)  
  
 S47 2 S S31 NOT (S14 OR S16 OR S17 OR S18 OR S20 OR S22 OR S23 OR S24 OR S25 OR S27 OR  
 S28 OR S30)  
  
 S48 3 S S34 NOT (S14 OR S16 OR S17 OR S18 OR S20 OR S22 OR S23 OR S24 OR S25 OR S27 OR  
 S28 OR S30 OR S31)  
  
 S49 0 S S35 NOT (S14 OR S16 OR S17 OR S18 OR S20 OR S22 OR S23 OR S24 OR S25 OR S27 OR  
 S28 OR S30 OR S31 OR S34)  
  
 S50 6 S S15 NOT (S14 OR S16 OR S17 OR S18 OR S20 OR S22 OR S23 OR S24 OR S25 OR S27 OR  
 S28 OR S30 OR S31 OR S34 OR S35)  
  
 S51 7 S S29 NOT (S14 OR S15 OR S16 OR S17 OR S18 OR S20 OR S22 OR S23 OR S24 OR S25 OR  
 S27 OR S28 OR S30 OR S31 OR S34 OR S35)